

IN THE CLAIMS

Please cancel claims 9, 10, 24, 25, and 26, and amend claims 1, 51, 79, 80 and 81 as follows:

1. (CURRENTLY AMENDED) A system for electronic communication management comprising:
 - a contact center configured to send and receive communications;
 - a modeling engine configured to analyze a communication received by the contact center and determine an intent of the received communication, wherein the modeling engine is configured to automatically retrieve a model based on the intent of the received communication;
 - an automatic response module supported by the modeling engine that generates a predicted response to the received communication using the retrieved model;
 - an agent that composes an actual response to the received communication using the retrieved model;
 - an adaptive knowledge base configured to store the models used by the modeling engine;
 - and
 - a feedback module configured to ~~analyze a~~ compare the actual response to the received communication with the predicted response to the received communication and provide feedback to the modeling engine, which uses the feedback to update the models in the adaptive knowledge base, so as to improve subsequent predicted responses to received communications.
2. (ORIGINAL) The system of claim 1, wherein the contact center is configured to send and receive communications via text-based communication channels.
3. (PREVIOUSLY PRESENTED) The system of claim 1, wherein the contact center is configured to send and receive communications via voice-based communication channels.
4. (PREVIOUSLY PRESENTED) The system of claim 1, wherein the contact center is configured to receive text communications comprising natural language.
5. (PREVIOUSLY PRESENTED) The system of claim 4, wherein the modeling engine comprises a natural language processor configured to analyze the text communications to identify concepts.
6. (ORIGINAL) The system of claim 5, wherein the natural language processor performs a morphological analysis of the text communications.

7. (ORIGINAL) The system of claim 5, wherein the natural language processor performs a semantic analysis of the text communications.
8. (PREVIOUSLY PRESENTED) The system of claim 5, wherein the natural language processor comprises a lexical knowledge base.
9. (CANCELED)
10. (CANCELED)
11. (PREVIOUSLY PRESENTED) The system of claim 1, wherein the contact center is configured to convert received communications into a universal data model format.
12. (PREVIOUSLY PRESENTED) The system of claim 1, further comprising an audit module configured to monitor responses generated by agents for quality.
13. (PREVIOUSLY PRESENTED) The system of claim 12, wherein the audit module is configured to generate an audit result that is fed back to the modeling engine.
14. (PREVIOUSLY PRESENTED) The system of claim 1, wherein each of the models in the adaptive knowledge base comprises an accuracy gauge configured to be updated by feedback.
15. (PREVIOUSLY PRESENTED) The system of claim 14, wherein the adaptive knowledge base comprises models for active concepts and models for inactive concepts.
16. (ORIGINAL) The system of claim 15, wherein the models for active concepts become inactive when they have a sufficiently low accuracy rating.
17. (ORIGINAL) The system of claim 15, wherein the models for inactive concepts become active when they have a sufficiently high accuracy rating.
18. (ORIGINAL) The system of claim 1, wherein the models in the adaptive knowledge base are organized into categories and the categories are associated with branches.
19. (PREVIOUSLY PRESENTED) The system of claim 18, wherein the modeling engine is configured to modify the branches in the adaptive knowledge base using the feedback from the feedback module.
20. (PREVIOUSLY PRESENTED) The system of claim 18, wherein hierarchies of the branches in the adaptive knowledge base comprise manually created hierarchies.
21. (PREVIOUSLY PRESENTED) The system of claim 18, wherein hierarchies of the branches in the adaptive knowledge base comprise automatically created hierarchies.

22. (ORIGINAL) The system of claim 18, wherein the branches in the adaptive knowledge base have associated rules.
23. (PREVIOUSLY PRESENTED) The system of claim 1, wherein the modeling engine comprises a statistical modeler configured to create the models and perform relationship algebra using the models.
24. (CANCELED)
25. (CANCELED)
26. (CANCELED)
27. (PREVIOUSLY PRESENTED) The system of claim 1, wherein the modeling engine is configured to support an application specific module.
28. (ORIGINAL) The system of claim 27, wherein the application specific module is an automatic response module.
29. (ORIGINAL) The system of claim 27, wherein the application specific module is an expertise routing module:
30. (ORIGINAL) The system of claim 27, wherein the application specific module is an automatic task prioritization module.
31. (PREVIOUSLY PRESENTED) The system of claim 27, wherein the application specific module is a content filter module configured to filter content of agent-generated responses.
32. (ORIGINAL) The system of claim 27, wherein the application specific module is a business process automation module.
33. (ORIGINAL) The system of claim 27, wherein the application specific module is a workflow application.
34. (ORIGINAL) The system of claim 27, wherein the application specific module is a Frequently Asked Questions module.
35. (PREVIOUSLY PRESENTED) The system of claim 27, wherein the application specific module is configured to generally classify the received communications according to content.
36. (ORIGINAL) The system of claim 2, further comprising a digital signal processing module configured to process received voice communications.

37. (PREVIOUSLY PRESENTED) The system of claim 36, wherein the digital signal processing module is further configured to categorize the received voice communications according to acoustical content of the received voice communications.

38. (ORIGINAL) The system of claim 1, wherein the feedback module is further configured to support multiple feedbacks to a single received communication.

39. (PREVIOUSLY PRESENTED) The system of claim 1, wherein the received communications comprise documents.

40. (ORIGINAL) The system of claim 39, wherein a statistical matching value between the documents and the models is evaluated by a calculated statistical likelihood value.

41. (PREVIOUSLY PRESENTED) A method for managing electronic communications in a computer network, the method comprising:
receiving a communication over the computer network;
analyzing the communication at a computer coupled to the computer network to determine an intent of the communication;
generating a predicted response to the communication based on the intent of the communication;
generating an actual response to the communication; and
comparing the actual response to the predicted response to improve subsequent predicted responses to communications received over the computer network.

42. (PREVIOUSLY PRESENTED) The method of claim 41, further comprising routing the communication based on semantical content of the communication.

43. (PREVIOUSLY PRESENTED) The method of claim 41, wherein the communication comprises a communication expressed in natural language.

44. (PREVIOUSLY PRESENTED) The method of claim 41, wherein generating a predicted response to the communication comprises comparing the communication to a model.

45. (PREVIOUSLY PRESENTED) The method of claim 41, wherein generating an actual response is performed by an automatic response module.

46. (PREVIOUSLY PRESENTED) The method of claim 41, wherein generating an actual response is performed by an agent.

47. (PREVIOUSLY PRESENTED) The method of claim 41, wherein the communication comprises a text communication comprising natural language.

48. (PREVIOUSLY PRESENTED) The method of claim 47, wherein analyzing the communication comprises morphological analysis or semantic analysis.

49. (PREVIOUSLY PRESENTED) The method of claim 41, wherein generating a predicted response to the communication comprises comparing the communication to a set of models that correspond to a category related to the intent of the communication.

50. (PREVIOUSLY PRESENTED) The method of claim 41, wherein comparing the actual response and the predicted response generates feedback that is used to modify a model.

51. (CURRENTLY AMENDED) The method of claim 50, wherein if the actual response is ~~substantially~~ similar to the predicted response, the generated feedback is positive, and if the actual response is ~~substantially~~ different from the predicted response, the generated feedback is negative.

52. (PREVIOUSLY PRESENTED) The method of claim 41, wherein the communication comprises a voice communication expressed in natural language.

53. (PREVIOUSLY PRESENTED) The method of claim 52, wherein analyzing the communication comprises digital signal processing of the voice communication.

54. (PREVIOUSLY PRESENTED) The method of claim 53, wherein generating the predicted response to the communication comprises categorizing the voice communication based on acoustical content of the voice communication.

55. (PREVIOUSLY PRESENTED) A method for processing a relationship event in a computer network, the method comprising:
receiving the relationship event over the computer network;
analyzing the relationship event at a computing device coupled to the computer network to identify concepts in the relationship event;
building an event model of the relationship event using the identified concepts;
mapping the event model to models in a knowledge base to generate category scores;
and
routing the relationship event over the computer network for action based on the category scores.

56. (PREVIOUSLY PRESENTED) A computer-readable medium having a program embodied thereon, the program being executable by a computer to perform a method for electronic communication management, the method comprising:

- receiving a communication;
- analyzing the communication to determine an intent of the communication;
- generating a predicted response to the communication based on the intent of the communication;
- generating an actual response to the communication; and
- comparing the actual response and the predicted response to improve subsequent predicted responses to communications.

57. (PREVIOUSLY PRESENTED) The computer-readable medium of claim 56, wherein comparing the actual response and the predicted response occurs in real time.

58. (PREVIOUSLY PRESENTED) The computer-readable medium of claim 56, wherein comparing the actual response and the predicted response occurs off-line.

59. (PREVIOUSLY PRESENTED) A computer-readable medium having a program embodied thereon, the program being executable by a computer to perform a method for processing a relationship event, the method comprising:

- receiving the relationship event;
- analyzing the relationship event to identify concepts in the relationship event;
- building an event model of the relationship event using the concepts;
- mapping the event model to models in a knowledge base to generate category scores; and
- routing the relationship event over the computer network for action based on the category scores.

60. (PREVIOUSLY PRESENTED) A system for electronic communication management, comprising:

- means for receiving a communication;
- means for analyzing the communication to determine intent;
- means for predicting a response to the communication based on the intent, generating a predicted response;
- means for preparing a response to the communication, generating an actual response; and

means for comparing the actual response and the predicted response to improve subsequent predictions.

61. (PREVIOUSLY PRESENTED) A system for electronic communication management, comprising:

- a contact center configured to send and receive communications via at least one communication channel;

- a modeling engine configured to analyze a received communication to determine an intent, and further configured to retrieve data related to the intent;

- an adaptive knowledge base configured to store models; and

- a feedback module configured to compare a response predicted by the modeling engine in conjunction with the models in the adaptive knowledge base and an actual response to the received communication to generate feedback, the feedback being used to update the models in the adaptive knowledge base such that the system learns from each received communication.

62. (ORIGINAL) The system of claim 61, wherein the modeling engine gains knowledge from communications on one communication channel and applies the knowledge to communications on another communication channel.

63. (PREVIOUSLY PRESENTED) A method for computerized analysis of communications using computer-generated adaptive models, comprising:

- receiving a communication;

- analyzing content of the communication on a computer to identify at least one concept of the communication;

- creating a model of the communication using the at least one concept;

- comparing the model of the communication to a set of adaptive models to generate a predicted response to the communication;

- generating an actual response to the communication;

- comparing the predicted response and the actual response to generate feedback; and

- using the feedback to modify at least one of the set of adaptive models such that the set of adaptive models learns with each received communication.

64. (PREVIOUSLY PRESENTED) The method of claim 63, wherein comparing the predicted response and the actual response occurs in real time.

65. (PREVIOUSLY PRESENTED) The method of claim 63, wherein using the feedback to modify at least one of the set of adaptive models occurs in real time.

66. (PREVIOUSLY PRESENTED) The method of claim 63, wherein comparing the predicted response and the actual response occurs while further communications are being received.

67. (PREVIOUSLY PRESENTED) The method of claim 63, wherein using the feedback to modify at least one of the set of adaptive models occurs while further communications are being received.

68. (PREVIOUSLY PRESENTED) The method of claim 63, wherein the content of the communication comprises content expressed in a natural language.

69. (PREVIOUSLY PRESENTED) The method of claim 63, wherein the content of the communication comprises metadata.

70. (PREVIOUSLY PRESENTED) The method of claim 63, wherein the content of the communication comprises structured information.

71. (PREVIOUSLY PRESENTED) The method of claim 63, wherein the communication comprises a text communication.

72. (PREVIOUSLY PRESENTED) The method of claim 63, wherein the communication comprises a voice communication.

73. (PREVIOUSLY PRESENTED) A system for electronic communication management, comprising:

- a contact center configured to send and receive communications;

- an adaptive knowledge base configured to store models;

- a modeling engine configured to analyze a received communication to determine an intent, to prepare a model of the communication based on the intent, and to compare the model of the communication with the models stored in the adaptive knowledge base to generate a predicted response; and

- a feedback module configured to compare the predicted response with an actual response to the received communication to generate feedback used by the adaptive knowledge base to modify at least one model such that the system learns from the received communication.

74. (PREVIOUSLY PRESENTED) The system of claim 73, wherein a human agent generates the actual response to the received communication.

75. (PREVIOUSLY PRESENTED) The system of claim 73, wherein the adaptive knowledge base modifies at least one model in response to each communication received by the contact center such that the system learns from each received communication.

76. (PREVIOUSLY PRESENTED) The system of claim 73, wherein the modeling engine is further configured to determine a plurality of intents in the received communication.

77. (PREVIOUSLY PRESENTED) The system of claim 76, wherein the modeling engine is further configured to determine an explicit intent and an implicit intent in the received communication.

78. (PREVIOUSLY PRESENTED) A method for real-time learning in a computerized communication management system, comprising:

- receiving a communication;
- creating a model of the communication on a computer;
- comparing the model of the communication to a set of adaptive models to generate a predicted action in response to the communication;
- comparing the predicted action with an actual action in response to the communication to generate feedback; and
- updating the set of adaptive models according to the feedback.

79. (CURRENTLY AMENDED) The method of claim 78, wherein if the predicted action is ~~substantially~~ similar to the actual action, the feedback is positive and an accuracy rating of a model in the set of adaptive models that generated the predicted action is increased.

80. (CURRENTLY AMENDED) The method of claim 78, wherein if the predicted action ~~substantially~~ differs from the actual action, the feedback is negative and an accuracy rating of a model in the set of adaptive models that generated the predicted action is decreased.

81. (CURRENTLY AMENDED) The method of claim 78, wherein if the predicted action ~~substantially~~ differs from the actual action and if a model that is ~~substantially~~ similar to the actual action exists in the set of adaptive models, then the feedback is negative for a model in the set of adaptive models that generated the predicted action and the feedback is positive for the model that is ~~substantially~~ similar to the actual action.

82. (PREVIOUSLY PRESENTED) A method for real-time modeling of communications in a computerized communication management system, comprising:

- receiving a communication;
- creating a model of the communication on a computer;
- comparing the model of the communication to a set of adaptive models to determine a category for the communication;
- comparing the determined category with an actual category for the communication to generate feedback; and
- updating the set of adaptive models according to the feedback.